Husqvarna

272 S

Instruction manual

Please read these instructions carefully and make sure you understand them before using the stump grinder.

101 87 56-26

KEY TO SYMBOLS

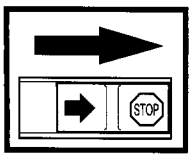
Symbols on stump grinder:

WARNING! Stump grinders can be dangerous! Careless or improper use can result in serious or even fatal injury.

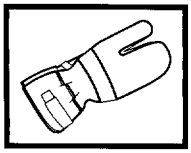
Please read these instructions carefully and make sure you understand them before using the stump grinder.

Always wear:
- Safety helmet
- Hearing protectors
- Safety goggles or full-face visor

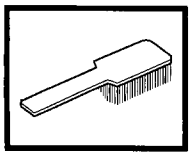
Symbols used in instruction manual:



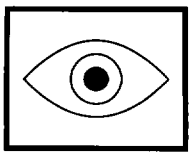
Inspection and/or maintenance must be carried out with the engine switched off and with the stop switch in the "STOP" position.



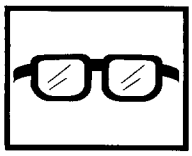
Always wear safety gloves.



Regular cleaning is required.



Visual inspection.



Safety goggles or a visor must be worn.

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Before using a new stump grinder

- Read the instruction manual carefully.
- Check that the cutter is correctly fitted and adjusted, see the chapter on *"Assembly"*.
- **The stump grinder must only be used with the trolley.**
- Start the engine and check the carburettor settings, see the chapter on *"Maintenance"*; sub-heading *"Carburettor"*. When the carburettor is correctly adjusted the cutter should remain stationary. Adjustment of the idle speed is described in this instruction manual. Adjust the idle speed as directed. Do not use the stump grinder if the idle speed is not correctly adjusted!
- Get your Husqvarna dealer to check the stump grinder and carry out any necessary adjustments or repairs.

WARNING!
Under no circumstances should a stump grinder be modified in any way unless written approval has been obtained from the manufacturer. Unauthorised modifications may endanger your safety.

IMPORTANT INFORMATION! There is a much greater risk of engine failure if the carburettor mixture setting is too weak.
A poorly maintained air filter will result in fouling of the spark plug and excessive wear to engine components.

IMPORTANT INFORMATION! If the tungsten cutter blades require sharpening: contact your dealer.

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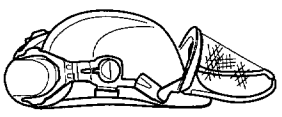
SAFETY PRECAUTIONS

WARNING! A stump grinder can be dangerous if used carelessly or incorrectly and may cause serious or even fatal injury. It is very important that you read and understand the instructions in this manual.

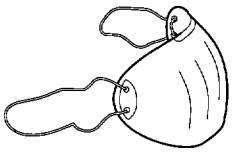
PERSONAL SAFETY EQUIPMENT

WARNING! Whenever you use a stump grinder you must use personal safety equipment that is approved by the relevant authorities. Personal safety equipment cannot eliminate the risk of injury, but it will reduce the seriousness of injury if an accident occurs. Ask your dealer for advice when choosing safety equipment.

- SAFETY HELMET
- HEARING PROTECTORS
- SAFETY GOGGLES OR FULL-FACE VISOR

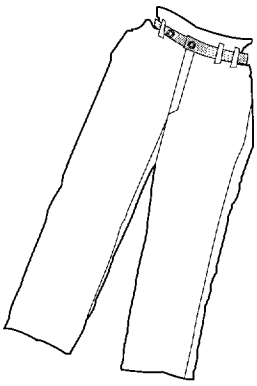


- DUST MASK



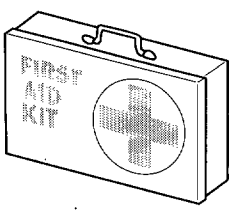
- HEAVY-DUTY NON-SLIP GLOVES

- HEAVY-DUTY CLOTHING THAT PERMITS FULL FREEDOM OF MOVEMENT
- LEG PROTECTION (TO PROTECT AGAINST SPARKS AND CUTTINGS)



- NON-SLIP BOOTS WITH STEEL TOE-CAPS

- A FIRST AID KIT MUST ALWAYS BE CLOSE TO HAND



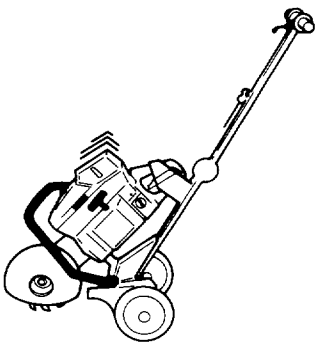
STUMP GRINDER SAFETY EQUIPMENT

This chapter describes the safety features of the stump grinder, the functions they serve, and how to inspect and maintain them to ensure they are working properly. (See *"What's what"* to find out where these components are located on your stump grinder).

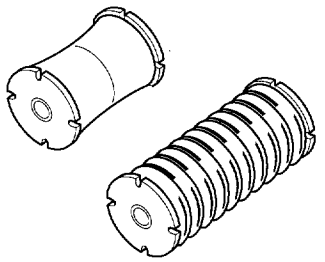
WARNING! Never use a stump grinder that has faulty safety equipment. Follow the inspection, maintenance and service instructions given in this manual.

1 Vibration damping system

Your stump grinder is equipped with a vibration damping system. This is designed to minimise vibration and make the machine as easy to use as possible.

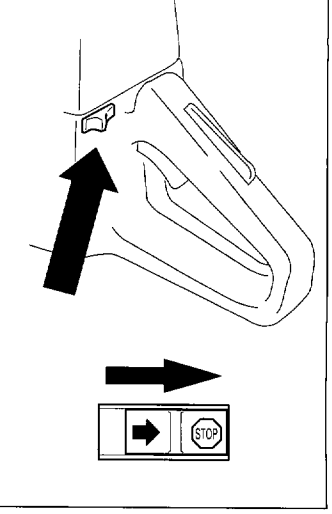


The vibration damping system fitted to the machine reduces the vibrations that are transmitted from the engine and cutting attachment to the trolley. The engine and cutting attachment are insulated from the handle assembly by vibration damping elements.



2 Stop switch

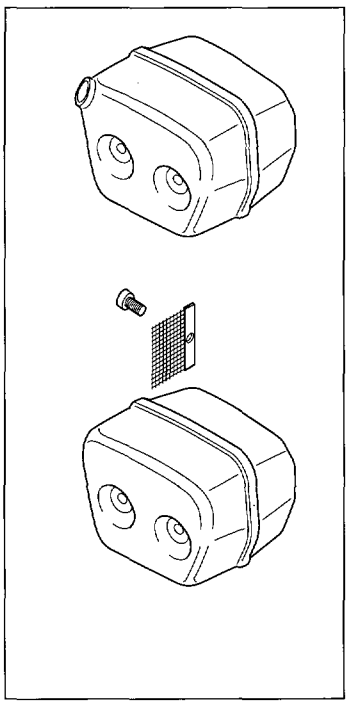
The stop switch is used to switch off the engine.



3 Silencer

WARNING! The silencer gets very hot during operation and remains so for a short time afterwards. Do not touch the silencer if it is hot!

The silencer is designed to keep noise levels to a minimum and direct exhaust fumes away from the user. Engine exhaust fumes are hot and may carry sparks which could start a fire.



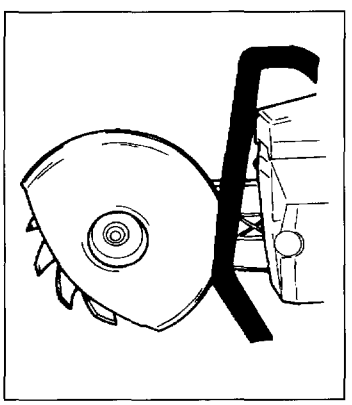
In countries with a hot, dry climate there is a considerable risk of forest fires. On some stump grinders the silencer is therefore fitted with a "spark arrester mesh". Check whether the silencer of your machine is fitted with such a mesh.

IMPORTANT INFORMATION! It is especially important that you follow the instructions on checking, maintaining and servicing the silencer (see the chapter "*Inspecting, maintaining and servicing stump grinder safety equipment*")

4 Cutter safety guard

WARNING! Always check that the safety guard is correctly fitted before starting the machine.

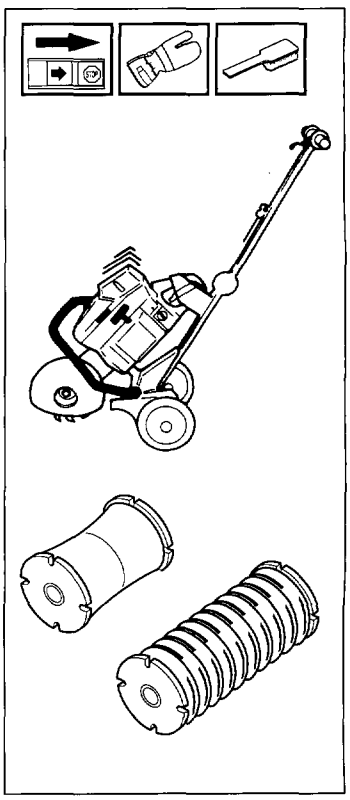
The guard is mounted above the cutter and prevents cuttings from being thrown at the user.



Inspecting, maintaining and servicing stump grinder safety equipment

WARNING! Special training is required to carry out service and repair work on the stump grinder.
This applies particularly to the stump grinder safety equipment. If the stump grinder fails any of the checks described you should contact your service agent.
When you buy any of our products we guarantee that you will have access to professional repairs and service. If the store where you bought your stump grinder is not one of our servicing dealers, ask for the address of the nearest service agent.

1 Vibration damping system

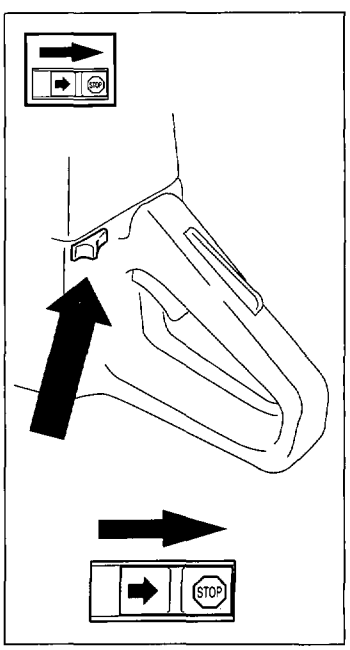


Regularly inspect the vibration damping elements for cracks or deformation.

Check that the vibration damping elements are securely attached between the engine unit and handle unit.

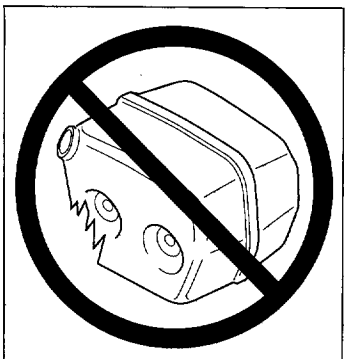
2 Stop switch

Start the engine and check that the engine stops when the stop switch is moved to the stop setting.

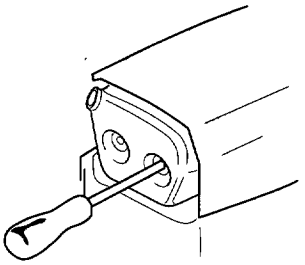


3 Silencer

Never use a stump grinder that has a faulty silencer.

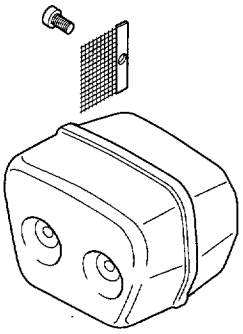


Regularly check that the silencer is securely bolted to the engine block.



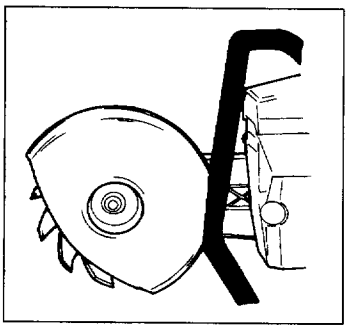
If the silencer on your stump grinder is fitted with a spark arrester mesh then it must be cleaned regularly. A blocked mesh will cause the engine to overheat and may lead to serious engine damage.

Never use a silencer without its spark arrester mesh or with a damaged mesh.



4 Cutter safety guard

Never use a damaged safety guard or a safety guard that is incorrectly fitted.



WARNING! Also check that the cutter is properly fitted and there are no signs of damage. A damaged cutter may cause injury.

WARNING! Never use a stump grinder that has faulty safety equipment. The stump grinder safety equipment must be inspected and maintained as described in this instruction manual. If your stump grinder fails any of these checks you should contact your service agent.

GENERAL SAFETY PRECAUTIONS

IMPORTANT INFORMATION!
Do not use the stump grinder until you have read and understood the instructions in this manual. All service work apart from that described in the chapter *"Inspecting, maintaining and servicing stump grinder safety equipment"* must be carried out by qualified service staff.

- Use the equipment recommended in the chapter *"Personal safety equipment"*.
- Never use the machine if you are tired or under the influence of drugs or alcohol,
- Do not lend the stump grinder out without passing on this instruction manual. Make sure the person who will use the stump grinder understands the information in this manual.

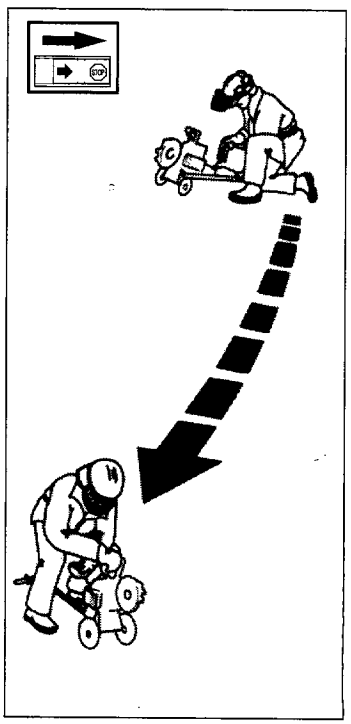
Transport and storage

- Keep the stump grinder in a locked place that is inaccessible to children or unauthorised adults.
- Remove the cutter before storing or transporting the stump grinder.

Fuel safety
(Refuelling/Mixing fuel/Storage)

WARNING! Take care when handling fuel. Consider the risks of fire, explosion and inhalation.

- Never refuel the stump grinder when the engine is running.
- Ensure good ventilation when refuelling and mixing fuel (petrol and two-stroke oil).
- Move the stump grinder at least 3 m away from the refuelling point before starting.
- Never start the stump grinder:
  a) If you have spilled fuel on it. Wipe up all spilled fuel.
  b) If you have spilled fuel on yourself. Change your clothes.
  c) If it is leaking fuel. Regularly check for leaks from the filler cup and fuel lines.



Store the stump grinder and fuel so that there is no risk of leaking fuel being exposed to sparks or naked flames from electric machines, electric motors, relays/switches, boilers, etc.

Always store fuel in a container that is specially designed and approved for that purpose.

If the stump grinder is to be stored for a long period the fuel tank should be drained first. Ask your local garage where you can dispose of surplus fuel.

SAFETY PRECAUTIONS

GENERAL WORKING INSTRUCTIONS

This section describes basic safety rules for using a stump grinder. Follow these general working instructions but never use a stump grinder unless there is someone near you can call for in case of accident.

Basic safety rules

WARNING! The stump grinder may only be used with the engine block securely mounted on the cutting trolley.

IMPORTANT INFORMATION! Never use a stump grinder that is damaged or badly adjusted. Do not use a stump grinder if any part is missing or if it has not been assembled satisfactorily.
Check that the cutter stops turning when the throttle control is released.
If you get into a situation where you are unsure how to proceed, get expert advice.
Do not tackle any task you feel unqualified for!

- Always make sure there is no-one near when you start the machine or while you are using it. People or animals may distract you so that you lose control of the machine.
- Avoid using the machine in bad weather, such as thick fog, heavy rain, strong wind, severe cold, etc. Working in bad weather is tiring and can lead to dangerous conditions, e.g. slippery ground.
- Do not start to use the machine until your working area is clear and you have a secure footing. Check all around for obstacles (roots, rocks, branches, holes, ditches, etc.). Take great care when working on sloping ground.
- Keep clothing and limbs clear of the cutter when you start the engine.
- Keep clear of the cutter when the engine is running.
- Do not use the machine if the safety guard is not fitted.

Only use the machine in areas that are well ventilated. Ignoring this advice could lead to serious or even fatal injury.

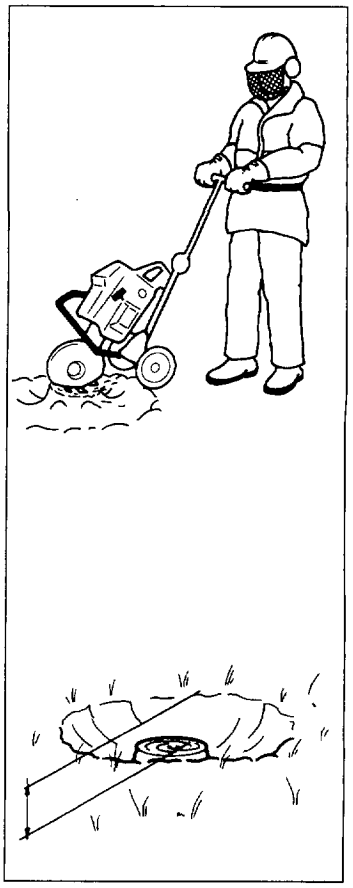
Stump grinding

Cut the stump as short as possible before using the stump grinder.

Dig around the stump to remove earth and stones that might damage the cutter.

WARNING! The safe distance from the stump grinder is 15 metres. It is your responsibility to ensure that no animals or spectators approach the area where you are working. Do not start grinding until the work area is clear and you have a secure footing.

Start grinding with the engine running at full revs.



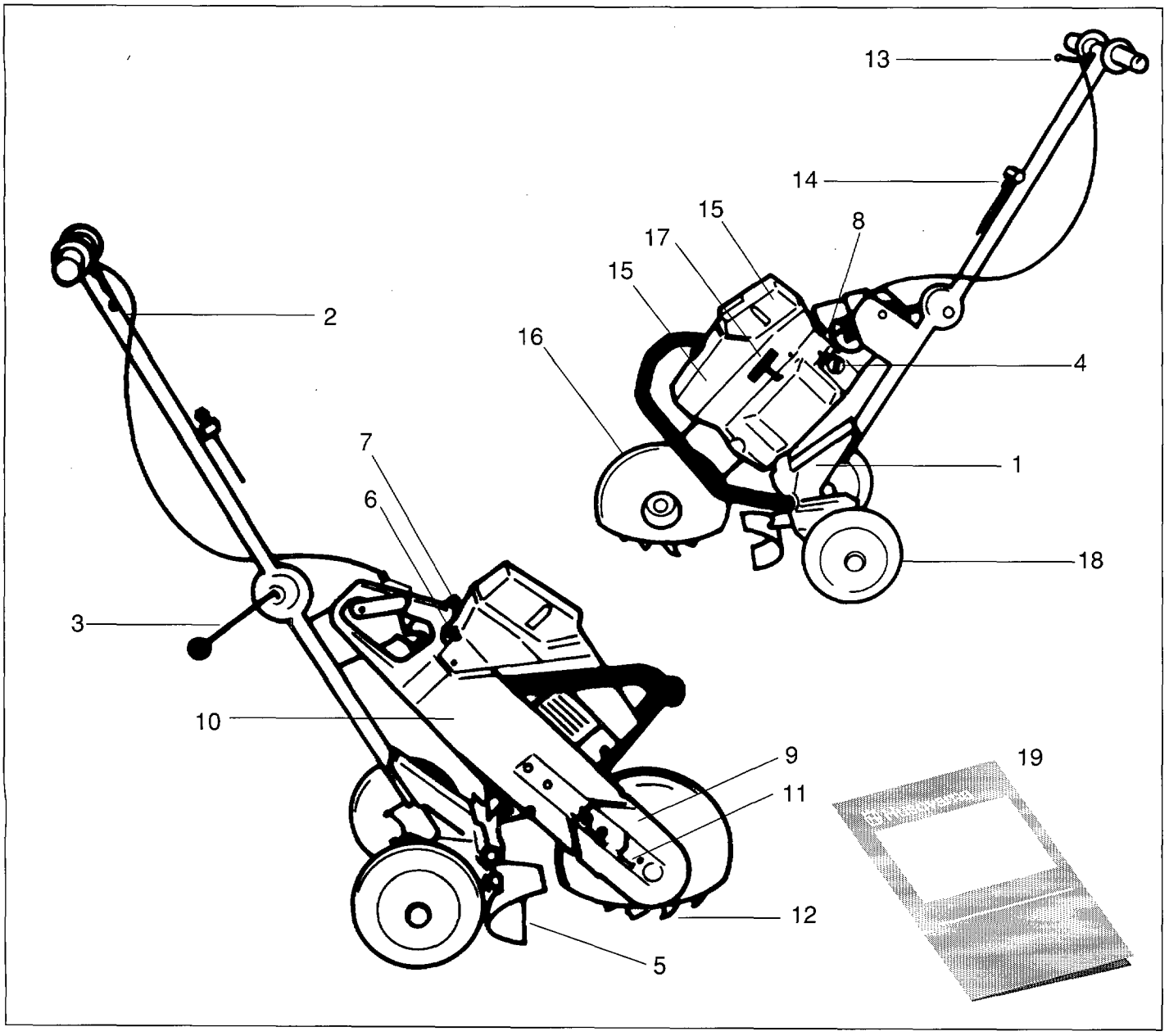
Always grip the handle firmly in both hands. Wrap your thumbs and fingers around the handle.

Move the stump grinder from side to side over the stump. The cutting depth on each cut should be around 25-50 mm.

Grind the stump down to about 100 mm below the surrounding surface. Cover the remains of the stump with earth when grinding is complete.

Overexposure to vibration can lead to circulatory or nerve damage in people who have circulatory problems.
Seek medical advice if you experience symptoms that might be caused by overexposure to vibration. Examples of symptoms include; numbness, loss of feeling, "pins and needles", pain, loss or reduction in strength, changes in skin colour or condition. These symptoms normally appear in the fingers, hands or wrists.

WHAT'S WHAT?



What's what on the stump grinder?

1. Cutting trolley
2. Upper handle
3. Locking lever for upper handle
4. Fuel tank
5. Spray guard
6. Choke control
7. Start throttle lock
8. Stop switch
9. Cutting head
10. Cutting arm
11. Belt tensioning bolt
12. Cutter
13. Throttle lever
14. Combination spanner
15. Air filter
16. Safety guard
17. Starter handle
18. Wheel
19. Instruction manual

ASSEMBLY

Before using the stump grinder:

The carton contains the following components:

A. Engine unit complete with cutting head and safety guard for cutter

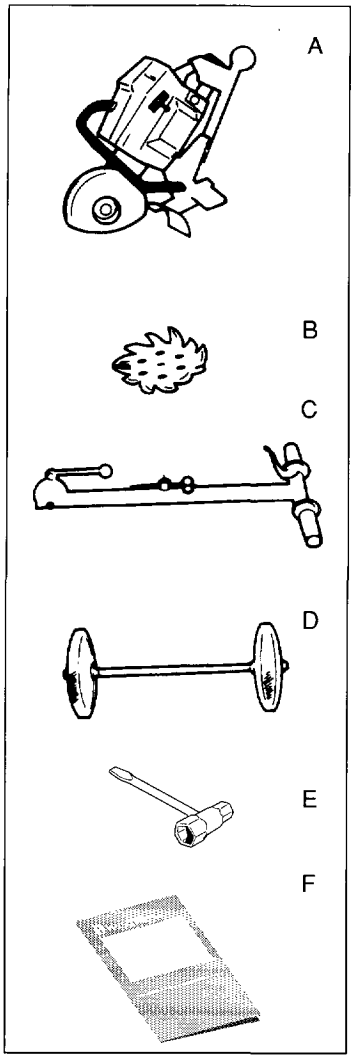
B. Cutter

C. Adjustable handle

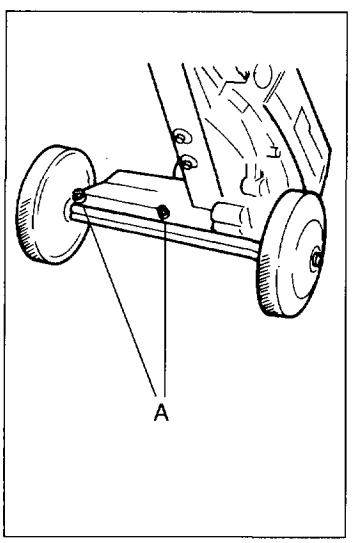
D. Wheels

E. Combination spanner

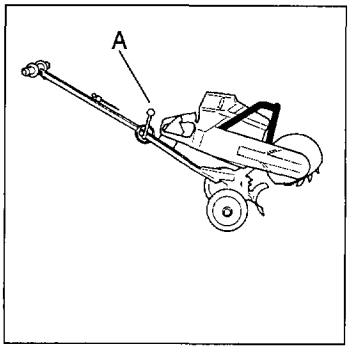
F. Instruction manual



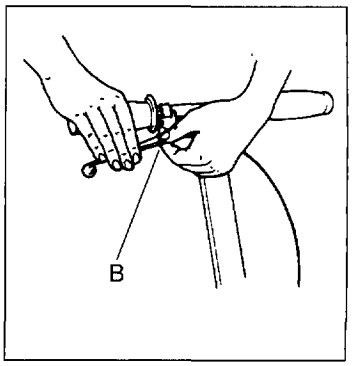
- Carefully check all parts before assembly to make sure nothing has been damaged in transport.
- Fit the wheels to the engine unit.
  NOTE! The wheels are offset to the right to give the machine the optimum balance.
- Tighten the bolts (A) using the combination spanner supplied.



- Fit the upper handle in line with the lower section as shown in the diagram. Make sure the rubber washer is in place and tighten the locking lever (A) securely.



- Connect the throttle cable to the throttle lever. Check that the cable moves freely (B).



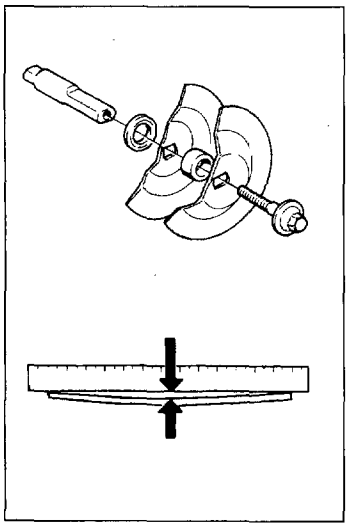
ASSEMBLY

Checking the drive shaft and flanges

Check that the drive shaft thread is not damaged.

Check that the mating faces of the cutter and flanges are flat and that they run properly on the shaft. Make sure there are no foreign objects on mating surfaces.

Do not use distorted, damaged or dirty flanges. Do not use flanges of different sizes.

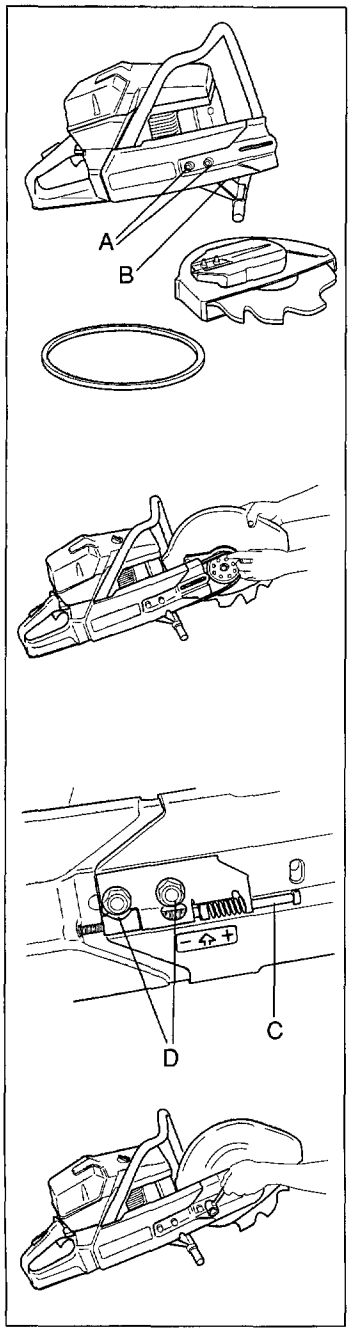


Fitting the cutting head

Remove both nuts (A) and bolts (B) from the cutting arm. Remove the cutting arm and fit the belt on the clutch drum. Refit the cutting arm. Tighten the nuts and bolts.

Guide the drive belt over the cutting head pulley and install the cutting head and belt guard on the cutting arm. Tighten the nuts by hand.

Screw in the belt tensioning bolt (C) so that the square nut is in line with the arrow on the belt guard. This will automatically give the correct belt tension. Tighten both nuts (D) using a socket spanner. New belts should be retensioned after one or two tanks of fuel have been used.

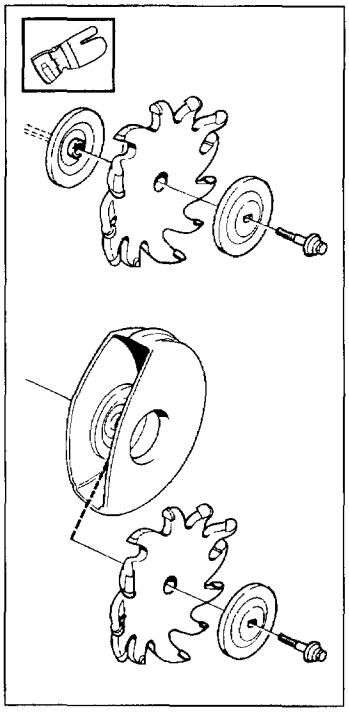


Fitting the cutter

WARNING! Using a damaged cutter can cause serious injury.

Before fitting the cutter to the machine: check that it has not been damaged in transport.

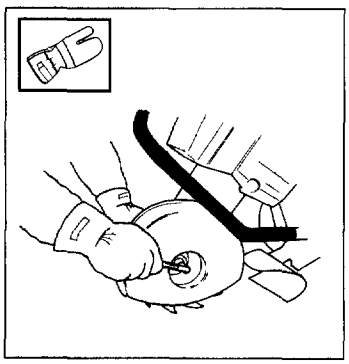
Fit the cutter as shown in the diagram on the right. Only use Husqvarna cutters (see "*Technical data*").
Check the cutter regularly and replace it immediately if it shows signs of cracking or other damage.



IMPORTANT INFORMATION
The sleeve between the flange washers is a friction fit on the shaft and is factory-fitted. Fit the cutter on the shaft, place the outer flange washer in place and tighten the bolt clockwise.

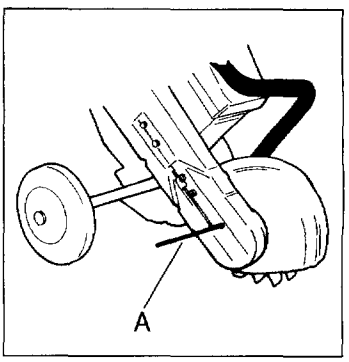
Check that the flange washers are fitted with the domed side facing the cutter and that they fit on the shaft.

Tighten the bolt securely using the combination spanner.



WARNING! Wear gloves to avoid cutting your hands on the cutter.

The drive shaft can be locked by inserting a mandrel (A) as far as it will go into the corresponding hole in the pulley. (This allows you to apply more force to tighten the bolt.)
Tighten the cutter retaining bolt by turning it clockwise.



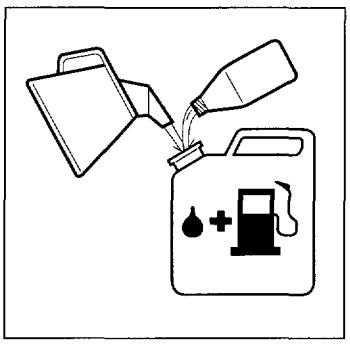
HANDLING FUEL

Fuel

WARNING! The stump grinder is fitted with a two-stroke engine and will only run on a mixture of petrol and two-stroke engine oil. To ensure the right mixture it is important that you carefully measure the amount of oil to be added. If you mix small amounts of fuel then small errors in the amount of oil can affect the mixture considerably. Ensure good ventilation when handling fuel.

Petrol

- Use high quality unleaded or leaded petrol.
- The minimum recommended octane is 90.
- If you use petrol with a lower octane it may result in "knocking" which leads to high engine temperatures and may cause severe damage to the engine.



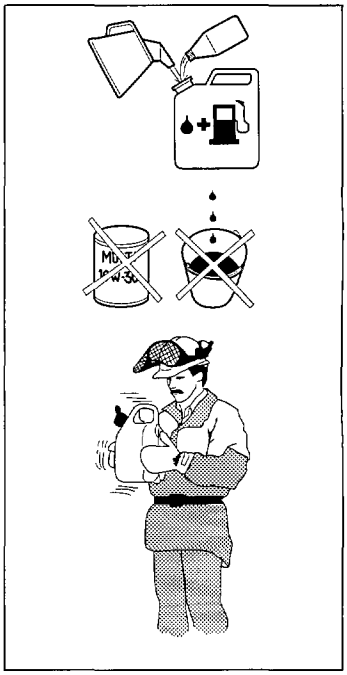
Two-stroke oil

- For best results use HUSQVARNA two-stroke oil, which is specially developed for chain saws and stump grinders. Mixture ratio 1:50 (2%).
- If HUSQVARNA two-stroke oil is not available you may use a high quality two-stroke oil that is designed for air-cooled engines. Contact your dealer for advice. Mixture ratio 1:33 (3%) - 1:25 (4%).
- Never use two-stroke oil intended for water-cooled outboard engines.
- Never use oil intended for four-stroke engines.

Petrol Litre	Oil Litre		
	2%(1:50)	3%(1:33)	4%(1:25)
5	0,10	0,15	0,20
10	0,20	0,30	0,40
15	0,30	0,45	0,60
20	0,40	0,60	0,80
US gallon	US fl. oz.		
	2%(1:50)	3%(1:33)	4%(1:25)
1	2 1/2	3 3/4	5 1/8
2 1/2	6 1/2	9 3/4	12 7/8
5	12 7/8	19 1/4	25 3/4

Mixing

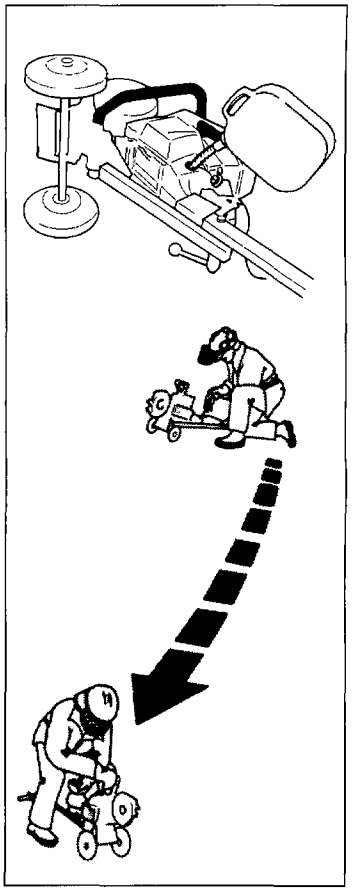
- Always mix fuel and oil in a clean container.
- Start by pouring in half the petrol. Then add all the oil. Shake the fuel mixture to mix it. Add the remaining petrol.
- Shake the fuel mixture thoroughly to mix it before filling the tank.
- Do not mix more fuel than is needed for 2 months' use.
- If the stump grinder is to be stored for a long period the fuel tank should be drained and cleaned.



Refuelling

WARNING!
Follow these precautions to reduce the risk of fire:
Do not smoke and do not place any hot object near fuel.
Never refuel with the engine running.
Remove the filler cap slowly before refuelling so that any pressure is released slowly.
Tighten the filler cap well after refuelling.
Always move the stump grinder away from the refuelling area before starting.

- Keep the handles clean, dry and free from oil and fuel.
- Dry the area around the filler cap. Clean the fuel tank regularly. Replace the fuel filter at least once a year. Impurities in the tank can cause running problems. Make sure the fuel is well mixed by shaking the container well before filling the tank.
- Always take care when refuelling. Move the stump grinder at least three metres from the filling area before starting it. Make sure the filler cap is tight.



STARTING AND STOPPING

Starting and stopping

WARNING! Take the following precautions before starting:
Do not start the stump grinder unless the cutting arm and cutting head are fitted. Otherwise the clutch may fly off and cause injury.
Always move the stump grinder away from the refuelling area before starting.
Make sure that both you and the machine have a secure footing and that the cutter can rotate freely.
Check that no unauthorised person is within your working area.

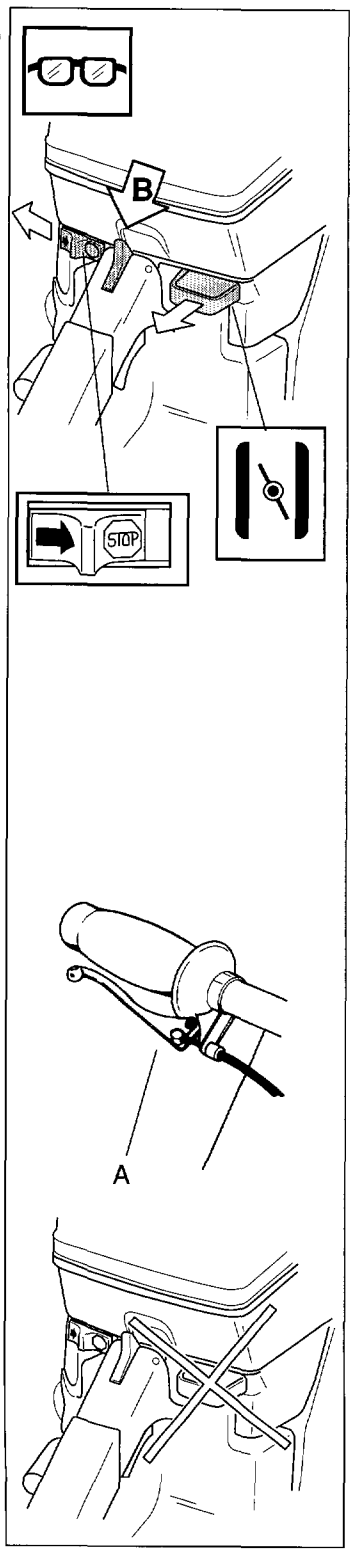
Starting a cold engine

IGNITION:
Slide the stop switch to the left.

CHOKE:
Pull out the choke knob.

DECOMPRESSION VALVE:
Press the valve in to reduce the pressure in the cylinder. This makes it easier to start the engine. Always use the decompression valve when starting. Once the machine has started the valve will automatically return to its starting position.

START THROTTLE:
Pull back the throttle lever (A) and slide the throttle lock backwards (B). The carburettor is now set at half throttle and the engine is ready to start. The lock (B) is released when the throttle lever is pulled back against the handle .



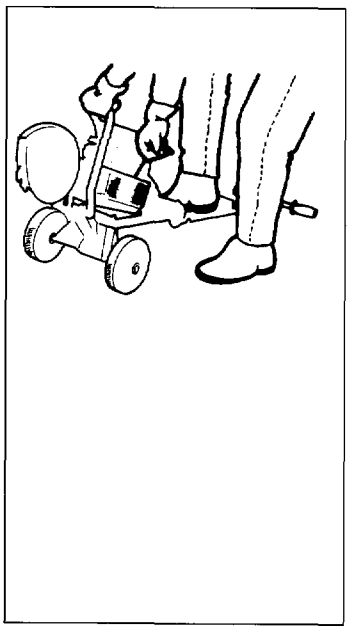
Starting a hot engine

Use the same procedure as for a cold engine but do not pull out the choke.

Starting

WARNING! The cutter will rotate when the engine starts. Make sure it can rotate freely.

Make sure that both you and the machine have a firm footing and the cutter can rotate freely.



Pull the starter handle slowly until the starter teeth engage. Then pull the handle swiftly.

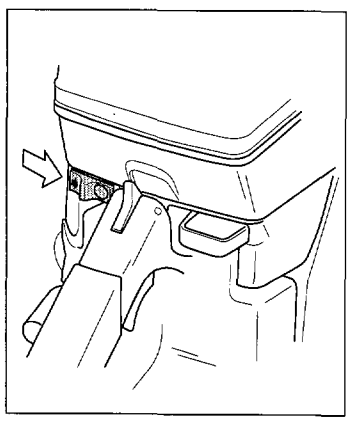
Push in the choke as soon as the engine "fires". Repeat the start procedure if necessary.

Apply full throttle as soon as the engine starts. The throttle lock will release automatically.

NOTE! Do not pull the starter cord all the way out and do not release the handle when fully extended. This may damage the stump grinder.

Stopping

Stop the engine by switching off the ignition. (Slide the stop switch to the right.)



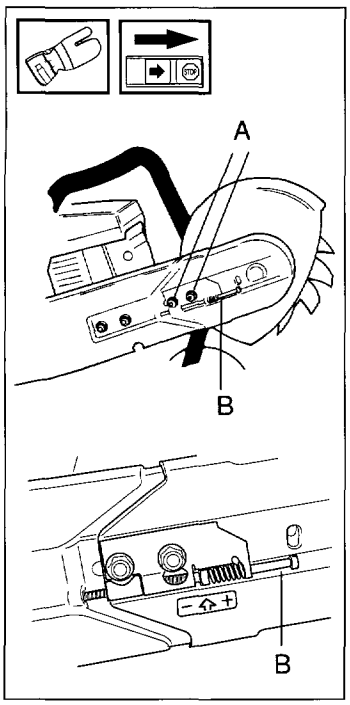
Adjusting the drive belt

The drive belt is fully enclosed and well protected from dirt, dust and mechanical action during operation.

To tension the drive belt, partially undo the nuts (A) that hold the cutting head and belt guard.

Turn the tensioning bolt so that the nut (B) is in line with the arrow on the guard. Shake the head to make sure that the spring can tension the belt. The belt is now correctly tensioned.

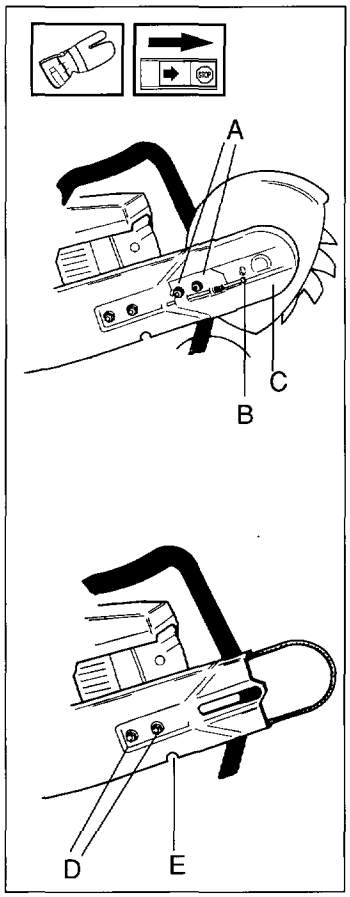
Tighten the nuts that hold the cutting head.



IMPORTANT INFORMATION! A new belt should be retensioned after one or two tanks of fuel have been used.

Replacing the drive belt

- Loosen the two bolts (A).
- Turn the tensioning bolt (B) to untension the belt.
- Remove the two bolts (A).
- Remove the front belt guard (C).
- Remove the belt from the pulley.
- Remove the cutting head.
- Remove the two nuts (D) and the bolts beneath them (E), then lift off the cutting arm.
- Replace the drive belt.
- Reassemble in the reverse order.
- Check the cutter safety guard for cracks or other damage. Replace it if damaged.



WARNING! Never use the stump grinder without the safety guard fitted to the cutter.

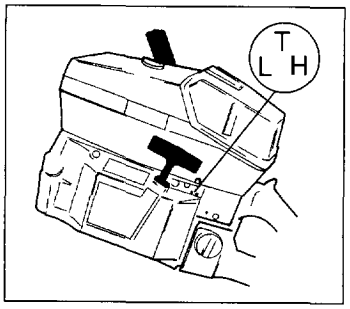
Carburettor

Function, Initial settings, Fine-tuning

WARNING! Do not start the stump grinder until the cutting head and cutter are correctly installed! (See the chapter on "*Assembly*".)

Function

- The carburettor is operated by the throttle lever and controls the engine speed. Air and fuel are mixed in the carburettor. The fuel/air mixture can be adjusted. To get best performance from the stump grinder the carburettor must be correctly adjusted.
- The carburettor adjustment will depend on local conditions such as climate, altitude, type of petrol and two-stroke oil.
- The carburettor has three adjustment options:
  L = Low speed jet
  H = High speed jet
  T = Idle adjustment screw



- The L and H jets are used to adjust the air/fuel mixture at different throttle settings. Turning them clockwise makes the air/fuel mixture weaker (less fuel) and turning them anticlockwise makes the air/fuel mixture richer (more fuel). A weak mixture gives a high engine speed and a rich mixture gives a low engine speed.
- The T screw controls the throttle setting at idle. Turning it clockwise increases the idle speed and turning it anticlockwise decreases the idle speed.

Initial settings and running-in

The basic carburettor settings are adjusted at the factory during the test run,
Initial settings are H=3/4 of a turn and L=1 turn.

To ensure that engine components are properly lubricated during "running-in" the carburettor should be initially adjusted for a slightly richer fuel mixture for the first 3-4 hours of operation. To do this adjust the top speed to 600-700 rpm below the recommended maximum top speed.

If it is not possible to check the top speed using a rev counter the H jet should be adjusted to give a weaker mixture than the initial setting.
The recommended maximum top speed must not be exceeded.
NOTE! If the cutter rotates at idle, turn the T jet anticlockwise until the cutter stops.

Fine-tuning

- Once the machine is "run-in" the carburettor should be fine-tuned. **Fine-tuning should be carried out by a trained mechanic.** First adjust the L jet, then the idle screw T, and finally the H jet. **Recommended engine speeds are as follows:**

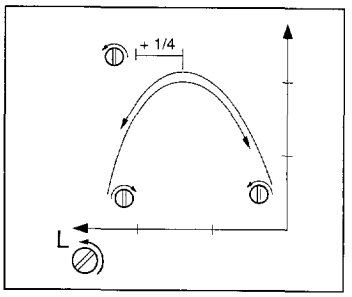
Max. top speed	**Idle speed**
10,000 rpm	**2,500 rpm**

Requirements

- Before making any adjustments the air filter must be clean and the cylinder cover must be fitted. If the carburettor is adjusted when the air filter is dirty the fuel mixture will be too weak next time the filter is cleaned. This can cause serious engine damage.
- Gently screw in (clockwise) the L and H jets as far as they will go. Then unscrew (anticlockwise) both jets 1 turn. The carburettor settings are now H=1 and L=1.
- Start the stump grinder (as instructed in "*Starting and stopping*") and let the machine run for ten minutes. **NOTE! If the cutter rotates at idle, turn the T jet anticlockwise until the cutter stops.**

Low speed jet L

- Find the highest idle speed by slowly turning the low speed jet first clockwise and then anticlockwise. Once you have found the highest idle speed turn the L jet 1/4 turn clockwise.
- NOTE! If the cutter rotates at idle turn the T jet anticlockwise until the cutter stops.

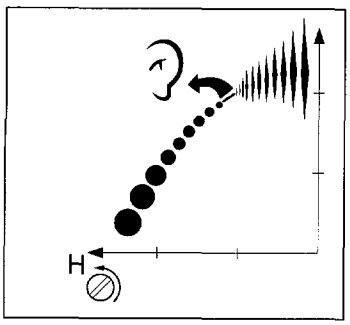


Fine-tuning the idle setting T

The idle speed is adjusted using the screw marked T. If adjustment is necessary, screw in (clockwise) the idle screw T with the engine running until the cutter starts to rotate. Then unscrew (anticlockwise) until the cutter stops. The idle speed is correctly adjusted when the engine runs smoothly in all positions and there is a safe margin of adjustment before the cutter starts rotating.

WARNING! If you cannot adjust the idle speed so that the cutter remains stationary, contact your service agent. Do not use the stump grinder until it has been correctly adjusted or repaired.

High speed jet H



- The carburettor is fitted with an automatic speed limiter to prevent the cutter exceeding its maximum working speed. At full throttle with the cutter rotating freely you will hear distinct variations in engine speed. This is normal and is simply a sign that the speed limiter is working.
- The high speed jet H controls the stump grinder performance and must be adjusted to the recommended initial setting, H=3/4 of a turn open.
- If adjustment is necessary proceed as follows:
  Screw in the high speed jet in small steps until the engine no longer accelerates from idle when you open the throttle quickly. Then unscrew the jet 1/4 turn.
- Using a rev counter check that the recommended maximum speed of 10,000 rpm is not exceeded.

  NOTE! If the high speed setting is too weak (H jet screwed in too far) the stump grinder will lose power and the engine will overheat and may be damaged. The high speed jet must be adjusted for maximum power output, NOT for maximum speed.

  NOTE! To achieve the optimum setting you should enlist a mechanic with access to a rev counter. The recommended maximum speed must not be exceeded.

Correctly adjusted carburettor

When the carburettor is correctly adjusted the machine will accelerate smoothly and will "burble" gently at full throttle. The cutter must not rotate at idle. If the setting of the L jet is too weak the engine will be difficult to start and accelerate poorly. If the setting of the H jet is too weak the engine will have less power, poor acceleration and engine damage may result. If the setting of the L or H jets is too rich the acceleration will be poor and the working speed will be low.

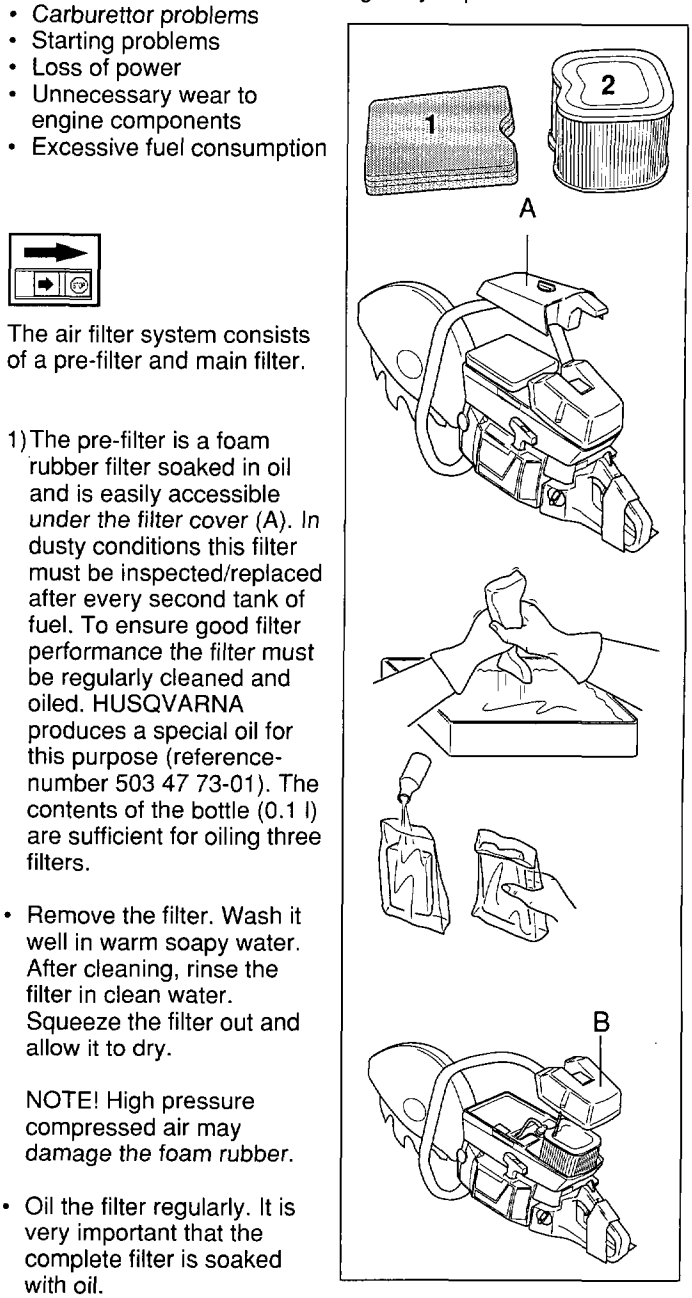
Fuel filter

- The fuel filter is located inside the fuel tank.
- The fuel tank must be protected from dirt during refuelling. This reduces the risk of operating problems caused by blockage of the fuel filter inside the tank.
- The filter cannot be cleaned and must be replaced with a new filter when it becomes blocked. **The filter should be replaced at least once a year.**

Air filter

The air filters must be cleaned regularly to prevent:

- *Carburettor problems*
- Starting problems
- Loss of power
- Unnecessary wear to engine components
- Excessive fuel consumption



The air filter system consists of a pre-filter and main filter.

1) The pre-filter is a foam rubber filter soaked in oil and is easily accessible *under the filter cover* (A). In dusty conditions this filter must be inspected/replaced after every second tank of fuel. To ensure good filter performance the filter must be regularly cleaned and oiled. HUSQVARNA produces a special oil for this purpose (reference-number 503 47 73-01). The contents of the bottle (0.1 l) are sufficient for oiling three filters.

- Remove the filter. Wash it well in warm soapy water. After cleaning, rinse the filter in clean water. Squeeze the filter out and allow it to dry.

  NOTE! High pressure compressed air may damage the foam rubber.

- Oil the filter regularly. It is very important that the complete filter is soaked with oil.

2) The main filter is a paper filter and is located under cover B. This filter must be cleaned or replaced when the engine loses power or after 1-2 weeks. The filter is cleaned by shaking it or gently blowing with compressed air. Note: this filter must not be washed!

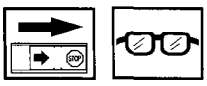
A filter that has been in use for a long time can never be thoroughly cleaned. All air filters must therefore be replaced at regular intervals. **Always replace a damaged filter.**

MAINTENANCE

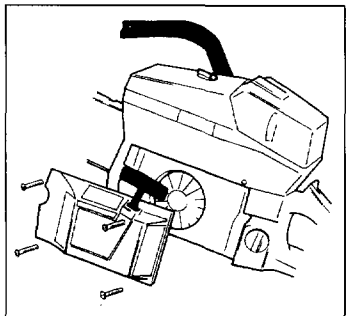
Starer unit

WARNING!
The return spring is coiled up inside the starter unit and may jump out if handled carelessly, possibly causing injury.
Take care when replacing the starter spring or starter cord. Always wear safety goggles.

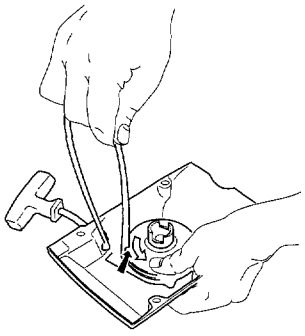
Replacing a worn or broken starter cord



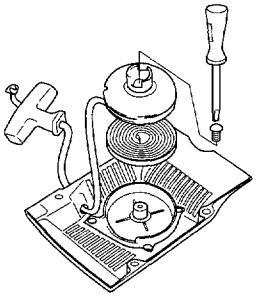
Remove the bolts that hold the starter unit to the crankcase and lift off the starter unit.



Pull out about 30 cm of the cord and bring the cord through the cut-out in the rim of the pulley. Release the return spring by letting the pulley slowly rotate backwards.



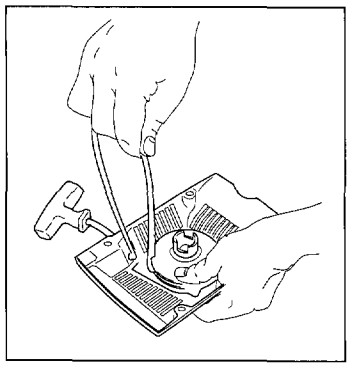
Remove the bolt from the centre of the pulley and lift off the pulley. Thread on a new cord and attach it to the pulley. Wind about 3 turns of the cord around the pulley. Position the pulley on the return spring so that the end of the spring engages with the pulley. Fit the bolt though the centre of the pulley. Thread the cord through the hole in starter housing then through the handle. Tie a firm knot in the end of the cord.



Tensioning the return spring

Bring the starter cord through the cut-out in the pulley and wind the pulley about 2 turns clockwise.

NOTE! Check that the pulley will turn at least a further 1/2 turn when the starter cord is fully extended.

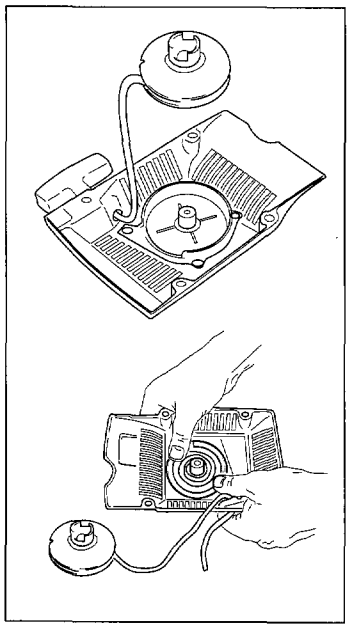


Replacing a broken return spring.

Lift off the pulley (see section on "*Replacing a worn or broken starter cord*"). Remember that the return spring is coiled up inside the starter housing..

To remove the return spring invert the starter unit so that the inside is facing downwards and gently tap it on a workbench. If the spring jumps out during fitting wind it up, starting at the outside and working inwards.

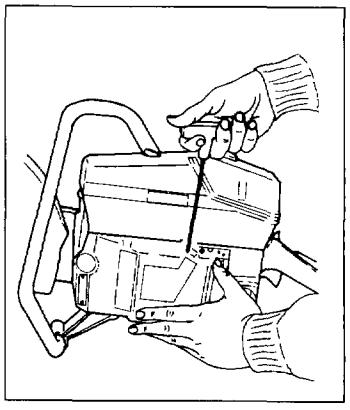
Lubricate the return spring with light oil. Fit the pulley and tension the return spring.



Fitting the starter unit

To fit the starter unit, first pull out the starter cord and position the starter unit on the crankcase. Then slowly release the starter cord so that the starter teeth engage on the pulley.

Fit the bolts that hold the starter unit and tighten them.



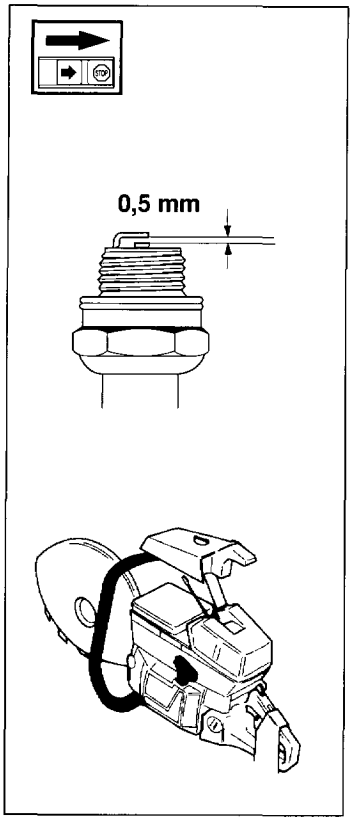
MAINTENANCE

Spark plug

Spark plug performance is impaired by:

- Incorrectly carburettor adjustment.
- Using the wrong fuel mixture (too much oil).
- A dirty air filter.

These factors will cause fouling of the spark plug electrodes and may result in starting or running problems.



- **If the machine is low on power or difficult to start, or if the idle speed is irregular, always check the spark plug before taking any other action.** If the plug is dirty, clean it and check that the electrode gap is 0.5 mm.

  The spark plug should be replaced after about one month's use, or earlier if necessary.

NOTE! Always fit the recommended type of plug (see the "*Technical data*" section)! Using the wrong plug can destroy the piston/cylinder.

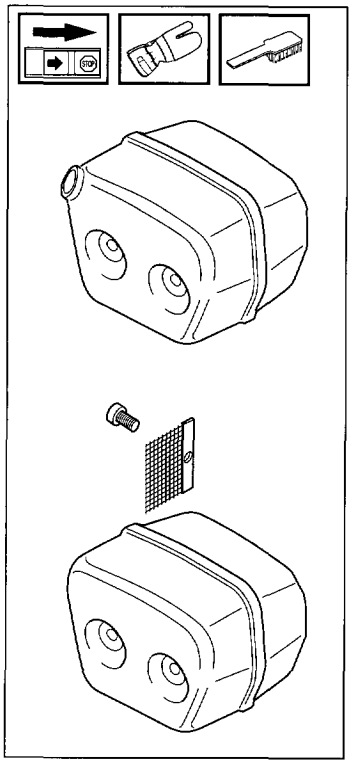
Silencer

The silencer is designed to reduce noise levels and direct exhaust fumes away from the operator.

Engine exhaust fumes are hot and may carry sparks which could start a fire if the exhaust is directed at dry flammable material. Certain silencers are fitted with a special spark arrester mesh.

If your stump grinder is fitted with such a mesh it should be cleaned once a week. This is best done with a wire brush.

NOTE! The mesh must be replaced if damaged. If the mesh becomes blocked the engine will overheat and the piston and cylinder may be damaged as a result. **Never use a silencer that is in a poor condition.**

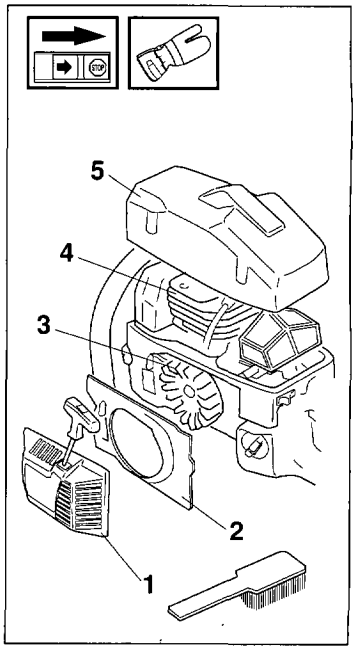


Cooling system

To keep the working temperature as low as possible the stump grinder is equipped with a cooling system:

The cooling system consists of:

1. Air intake in starter unit.
2. Air baffle.
3. Fan blades on flywheel.
4. Cylinder cooling flanges.
5. Cylinder cover (directs cool air over the cylinder).

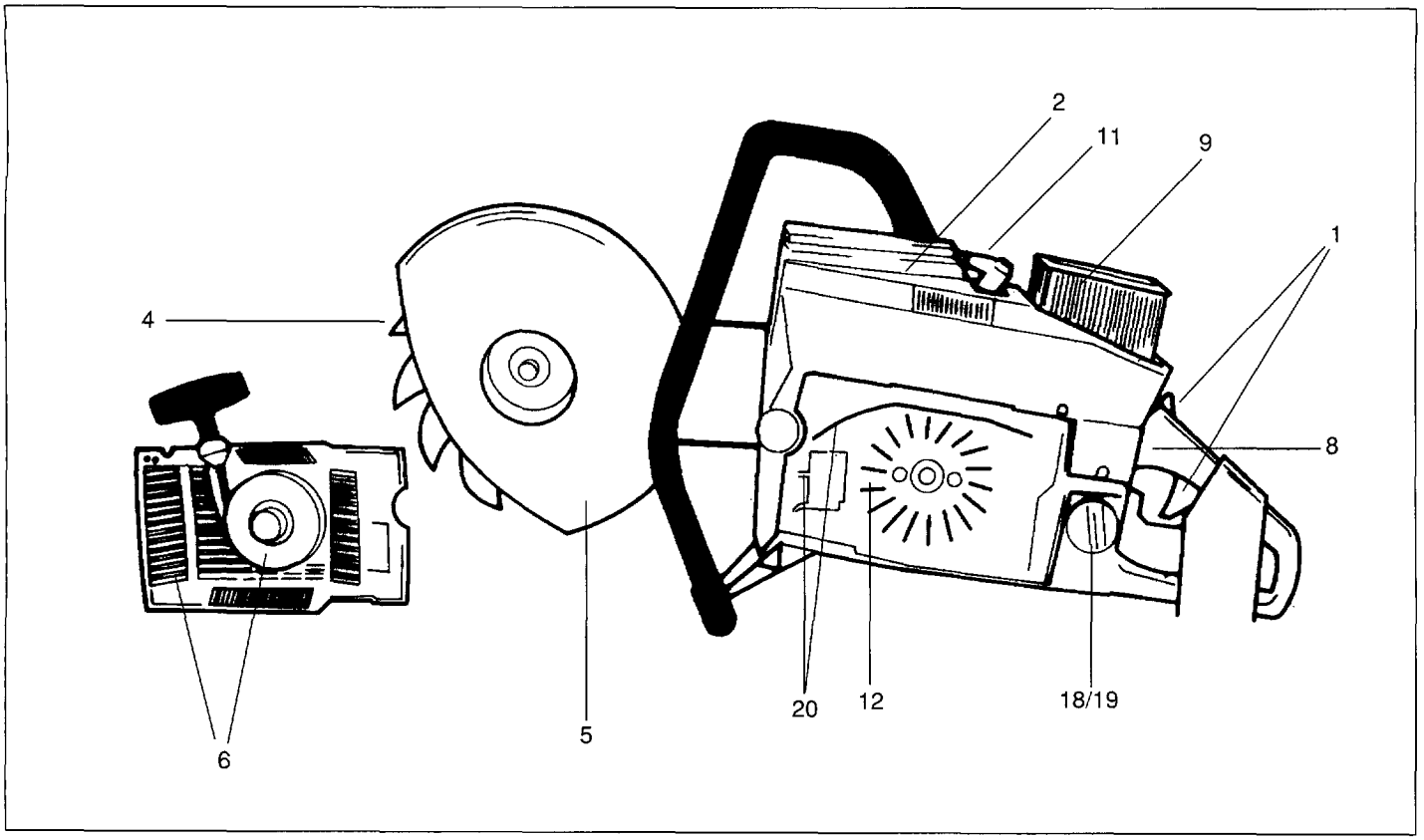


Clean the cooling system with a brush once a week, or more often in very dirty conditions. If the cooling system is dirty or blocked the stump grinder will overheat and the piston and cylinder may be damaged.

Sharpening the cutter

NOTE: If the tungsten carbide cutter blades require sharpening: contact your dealer!

MAINTENANCE



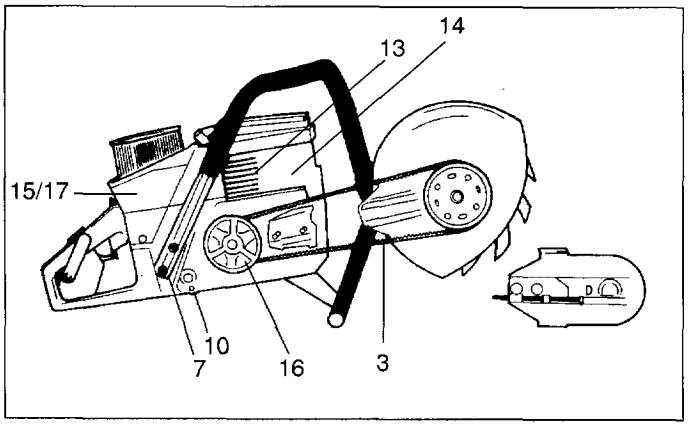
Below are some general instructions for the care of your machine. If you have any questions please contact your service agent.

Daily inspection

1. Check that all throttle components operate safely (throttle lever and throttle lock).
2. Clean the pre-filter.
3. Check the drive belt tension.
4. Check the condition of the cutter.
5. Check the condition of the safety guard.
6. Inspect the starter unit and starter cord, and clean the outside of the starter unit air intake.
7. Check that all nuts and bolts are tight.
8. Check that the stop switch works properly.

Weekly inspection

9. Inspect the pre-filter.
10. Check that the vibration damping elements are not damaged.
11. Clean the spark plug. Make sure the electrode gap is 0.5 mm.
12. Clean the fan blades on the flywheel. Inspect the starter unit and return spring.
13. Clean the cooling flanges on the cylinder.
14. Inspect the silencer. Clean or replace the spark arrester mesh, if fitted.
15. Clean the carburettor chamber.



Monthly inspection

16. Inspect the centre of the clutch, the drive pulley and the clutch springs for wear.
17. Clean the carburettor externally.
18. Inspect the fuel filter and fuel hose and replace if necessary.
19. Clean the inside of the fuel tank.
20. Inspect all cables and connections.

TECHNICAL DATA

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Engine

Cylinder volume, cc	72,2
Cylinder bore, mm	52
Stroke, mm	34
Idle speed, rpm	2.500
Max. recommended top speed, rpm	10.000
Power, kW/rpm	3,8/8 500

Ignition system

Manufacturer/type of ignition system	ET
Spark plug	Champion RCJ 7Y
Electrode gap, mm	0,5

Fuel lubrication system

Manufacturer/type of carburettor	Tillotson HS 225
Fuel tank capacity, litre/US pint	0,75/1,58

Weight

Complete machine with empty tanks, kg	21,0 kg

Noise levels

Equivalent (see note 1) sound pressure level at operator's ear, measured in conformance with ISO/DIS 11201, dB(A).	95
Equivalent (see note 1) sound power level at operator's ear, measured in conformance with ISO 3744, dB(A).	110

Vibration levels

Measured in conformance with ISO 5349, m/s^2	
Idle, left/right	3,5/4,3
Full speed, left/right	2,9/2,7

Cutting attachment

Use only Husqvarna cutter.

Gear ratio	Max. speed m/s
1:1.97	62

Dimensions

H=600 mm, L=720 mm, B=450 mm

Cutter	Gear ratio
210 mm/8"	1:1.97

Note 1: Equivalent noise level in conformance with ISO 7182 and ISO 9207, is calculated as the time-weighted total energy for noise levels under various working conditions as follows: 1/2 idle, 1/2 full speed.